

QW-482 SUGGESTED FORMAT FOR WELDING PROCEDURE SPECIFICATION (WPS)
(See QW-200.1, Section IX, ASME Boiler and Pressure Vessel Code)

Company Name Bearing Industrial Contractors By: Casey White
Welding Procedure Specification No. BIC #11 Date 10/01/07 Supporting PQR No.(s) QW485 BIC11
Revision No. 0 Date 05/10/2004
Welding Process(es) SMAW Type(s) Manual
(Automatic, Manual, Machine, or Semi-Auto.)

JOINTS (QW-402)	Details
Joint Design <u>V-GROOVE</u>	
Backing (Yes) _____ (No) <u>XX</u>	
Backing Material (Type) <u>NO RETAINERS</u> (Refer to both backing and retainers.)	
<input type="checkbox"/> Metal Nonfusing Metal	
<input type="checkbox"/> Nonmetallic Other	
<p>Sketches, Production Drawings, Weld Symbols or Written Description should show the general arrangement of the parts to be welded. Where applicable, the root spacing and the details of weld groove may be specified.</p> <p>(At the option of the Mfr., sketches may be attached to illustrate joint design, weld layers and bead sequence, e.g. for notch toughness procedures, for multiple process procedures, etc.)</p>	

***BASE METALS (QW-403)**

P-No. 1 Group No. 1 to P-No. 1 Group No. 1

OR

Specification type and grade SA106 Grade B

to Specification type and grade SA106 Grade B

OR

Chem. Analysis and Mech. Prop. _____ to _____

Chem. Analysis and Mech. Prop. _____

Thickness Range:

Base Metal: Groove .125" - .436" Fillet All

Pipe Dia. Range: Groove 1.00" O.D. & OVER Fillet All

Other _____

*FILLER METALS (QW-404)	1 st pass	Balance
Spec. No. (SFA) _____	<u>5.1</u>	<u>5.1</u>
AWS No. (Class) _____	<u>E6010</u>	<u>E7018</u>
F-No. _____	<u>3</u>	<u>4</u>
A-No. _____	<u>1</u>	<u>1</u>
Size of Filler Metals _____	<u>3/32", or 1/8"</u>	<u>3/32" or 1/8"</u>
Deposited Weld Metal _____		
Thickness Range: _____		
Groove _____	<u>.125" - .436"</u>	<u>.125" - .250"</u>
Fillet _____	<u>.125" - .436"</u>	<u>.125" - .250"</u>
Electrode-Flux (Class) _____		
Flux Trade Name _____		
Consumable Insert _____		
Other _____		

Submittal/Shop Drawing Review

APPROVED
NO EXCEPTIONS TAKEN

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*Each base metal-filler metal combination should be recorded
(12/89) This form (E00006) may be obtained

07-2300.
REPRINT 4/00 (750)

POSITIONS (QW-405) Position(s) of Groove <u>ALL</u> Welding Progression: Up <u>7018</u> Down <u>6010</u> Position(s) of Filler _____	POSTWELD HEAT TREATMENT (QW-407) Temperature Range <u>NONE</u> Time Range _____												
PREHEAT (QW-406) Preheat Temp. Min. <u>55 DEG. F.+</u> Interpass Temp. Max. <u>350 DEG. F.</u> Preheat Maintenance _____ (Continuous or special heating where applicable should be recorded)	GAS (QW-408) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Gas(es)</th> <th>Percent Composition (Mixture)</th> <th>Flow Rate</th> </tr> </thead> <tbody> <tr> <td>Shielding</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Trailing Backing</td> <td><u>N/A</u></td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Gas(es)	Percent Composition (Mixture)	Flow Rate	Shielding	_____	_____	_____	Trailing Backing	<u>N/A</u>	_____	_____
	Gas(es)	Percent Composition (Mixture)	Flow Rate										
Shielding	_____	_____	_____										
Trailing Backing	<u>N/A</u>	_____	_____										

ELECTRICAL CHARACTERISTICS (QW-409)

Current AC or DC DC Polarity REVERSE
 Amps (Range) 70 - 125 Volts (Range) 18 - 24
 (Amps and volts range should be recorded for each electrode size, position, and thickness, etc. This information may be listed in a tabular form similar to that shown below.)

Tungsten Electrode Size and Type _____
 (Pure Tungsten, 2% Thoriated, etc.)

Mode of Metal Transfer for GMAW _____
 (Spray arc, short circuiting arc, etc.)

Electrode Wire feed speed range _____

TECHNIQUE (QW-410)

String or Weave Bead EITHER WEAVE BEAD OR STRINGER BEAD

Orifice or Gas Cup Size _____

Initial and Interpass Cleaning (Brushing, Grinding, etc.) CHIPPING, GRINDING, OR WIRE BRUSHING

Method of Back Gouging _____

Oscillation _____

Contact Tube to Work Distance _____

Multiple or Single Pass (per side) MULTIPLE

Multiple or Single Electrodes SINGLE

Travel Speed (Range) MANUAL

Peening NO PEENING

Other NO PASS GREATER THAN 1/2"

Weld Layer(s)	Process	Filler Metal		Current		Volt Range	Travel Speed Range	Other (e.g., Remarks, Comments, Hot Wire Addition, Technique, Torch Angle, Etc.)
		Class	Dia.	Type Polar.	Amp. Range			
1	SMAW	E6010	3/32" or 1/8"	REV.	70 - 115	18 - 22	1-8 IPM	
BAL.	SMAW	E7018	3/32" or 1/8"	REV.	75 - 125	19 - 24	1-8 IPM	